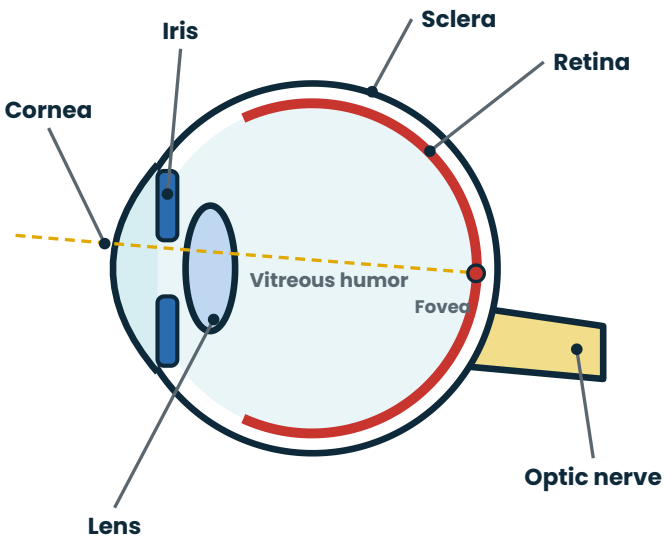
Special Senses

Study Sheet · Learn It with Prof. Melanie

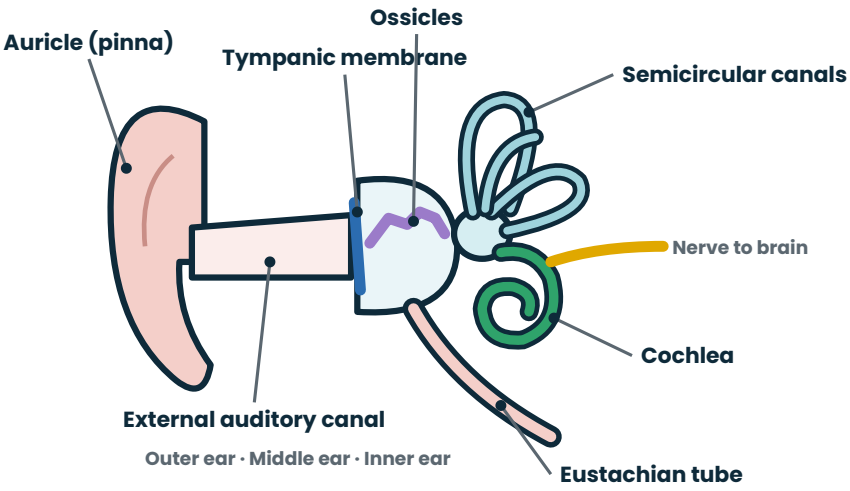
1 The Eye



2 Eye Structures

- **Sclera:** white outer layer
- **Cornea:** clear; bends light
- **Iris / pupil:** color / opening
- **Lens:** focuses (accommodation)
- **Retina:** rods (dim) and cones (color)
- **Macula / fovea:** sharpest vision
- **Optic disc:** blind spot
- **Aqueous / vitreous:** fluid / gel

3 The Ear



4 Ear Structures

- **Outer:** auricle, canal, cerumen
- **Middle:** eardrum, malleus, incus, stapes, eustachian tube
- **Inner:** cochlea (hearing); vestibule and semicircular canals (balance)

Other senses: taste (gustatory; sweet, sour, salty, bitter, umami), smell (olfactory), touch (tactile)

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5 Eye Conditions

Condition	Key facts	Condition	Key facts
Myopia	Nearsighted	**Cataract**	Cloudy lens
Hyperopia	Farsighted	**Glaucoma**	↑ eye pressure; optic nerve
Presbyopia	Aging; near focus lost	**Macular degeneration**	Central vision lost
Astigmatism	Irregular cornea	**Retinal detachment**	Flashes, curtain; emergency
Conjunctivitis	Pinkeye; often contagious	**Strabismus**	Misaligned eyes

6 Ear Conditions

Condition	Key facts	Condition	Key facts
Otitis media	Middle ear; children	**Conductive loss**	Sound blocked (wax, fluid)
Otitis externa	Swimmer's ear	**Sensorineural loss**	Inner ear or nerve
Tinnitus	Ringing in ears	**Presbycusis**	Aging hearing loss
Vertigo	Spinning feeling	**Meniere's**	Vertigo, tinnitus, hearing loss

7 Screenings

Snellen	Distance; 20 ft; each eye
Jaeger	Near; about 14 in
Ishihara	Color vision
Tonometry	Eye pressure
Audiometry	Hearing by pitch, volume
Tympanometry	Eardrum movement

20/40: sees at 20 ft what normal sees at 40 ft

8 Procedures

- **Ear, adult:** pull up and back
- **Ear, child under 3:** down and back
- Ear solution about body temperature
- **Eye drops:** lower conjunctival sac
- **Eye irrigation:** inner to outer canthus
- Check the order for the correct side

9 Word Parts

Part	Meaning	Part	Meaning	Part	Meaning
ophthalm/o	Eye	**ot/o, aur/o**	Ear	**-opia**	Vision
blephar/o	Eyelid	**myring/o**	Eardrum	**-cusis**	Hearing
kerat/o	Cornea	**audi/o**	Hearing	**presby-**	Old age

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